

REMARKS

Favorable reconsideration is respectfully requested.

The above amendment is responsive to points set forth in the Official Action.

The claims are 1 to 8. Claims 1, 3, and 4 are currently amended.

The amendments to the claims are editorial and self-explanatory and do not change the scope of the claims. Accordingly, no new matter is added as a matter of right.

Specification

The Office asserts that the specification must be updated with a reference to related applications. However, Applicants note that the specification need not be amended to refer to the PCT application and in fact the MPEP actually recommends not doing so. See MPEP §1893.03(c)III, p 1800-207, first column, last paragraph.

Claim Rejections – 35 U.S.C. §112

Claims 1 to 8 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

The process of the present invention is carried out by (a) heating a solution of soybean protein under acidic conditions, (b) cooling the solution if necessary, (c) adjusting pH of the solution to $4.5 < 5.6$, and (d) fractionating the solution at an ionic strength of 0.02 or more.

Claim 1 is currently amended to make clear that the ionic strength and pH conditions refer to the conditions of the fractionated process.

The claims are also amended to make clear that the pH of claim 3 refers to above step (a), while the pH of claim 1 refers to above step (c).

The Examiner also questions the temperature range recited in claim 4. In response, claim 4 is currently amended to make clear that the soybean protein is heated to any temperature between 30 and 75°C. The claim clearly does not require controlled heating starting at a temperature of 30°C and ending at a temperature of 70°C although this would be encompassed by the claim.

Claim Rejections - 35 U.S.C. §102/103

Claims 1 to 4, 6, and 8 are rejected under 35 U.S.C. §102(e) as being anticipated by Saitoh et al. (U.S. 6,638,562). Claims 5 and 7 are rejected under 35 U.S.C. §103(a) as being unpatentable over Saitoh et al. in view of current knowledge in the art.

Applicants respectfully traverse each of these rejections.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP 2131, cited *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Furthermore, to reject a claims as obvious, Office personnel must articulate a finding that the prior art included each element claimed. See MPEP §2143(A). Applicants submit that Saitoh et al. does not teach or suggest that an insoluble fraction can be separated by fractionating the solution under acidic conditions at an ionic strength of 0.02 or more and pH of 4.5 to less than 5.6 as recited in the present claims.

According to the present invention, an insoluble fraction (containing 11S globulin - see claim 7) can be separated, at a rapid separation-precipitate rate, by heating a solution containing soybean protein under acidic conditions, and then fractionating it at an ionic strength of 0.02 or more and pH of 4.5 to less than 5.6, thereby achieving a highly accurate and efficient fractionation of the soybean protein.

Saitoh et al. does not teach or suggest that an insoluble fraction (which contains 11S globulin - see claims 5 and 7) can be separated at a rapid separation-precipitate rate by fractionating the solution containing soybean protein, which has been heated under acidic conditions at an ionic strength of 0.02 or more and pH of 4.5 to less than 5.6.

For example, in Example 2 and Comparative Example 2 of the present specification, each solution containing soybean protein is heated at a temperature of 50°C and a pH of 4.5, and precipitate is separated at an appropriate pH to determine a separation-precipitation rate. In Example 2, the ionic strength is 0.013 and the pH is 5.5. In Comparative Example 2, the ionic strength is 0.013 and the pH is 5.9. As seen from Table 4, the separation-precipitation rate of

Example 2 is 4-fold faster than that of Comparative Example 2. Thus, the insoluble fraction can be much more rapidly separated from the soluble fraction by the present invention.

On the other hand, in Example 2 of Saitoh et al., cited by the Examiner, no adjustment of ionic strength is made, and further, the separation is carried out at a pH of 5.9. This is similar to the above-mentioned Comparative Example 2, but is completely different from the conditions recited in present claim 1. Therefore, the separation-precipitation rate of Saitoh et al. would be much slower.

Accordingly, Saitoh et al. does not teach or suggest that the rapid separation-precipitation of the present invention can be achieved by the conditions recited in claim 1 of the present application.

Therefore, all of the elements of claim 1 are not disclosed or suggested by Saitoh et al., and claim 1 is patentable over Saitoh et al. Since the remaining claims depend on claim 1, they are also patentable.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

Masahiro ISHIKAWA et al.

By: J. Mark Konieczny

J. Mark Konieczny

Registration No. 47,715

for

Matthew M. Jacob

Registration No. 25,154

Attorney for Applicants

MJ/JMK/aas

Washington, D.C. 20006-1021

Telephone (202) 721-8200

Facsimile (202) 721-8250

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